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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/354,478

07/15/99

TAGGART

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STEU-2661

005409

IM52/0608

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EXAMINER

SOUBRA, I

ART UNIT

PAPER NUMBER

1744

DATE MAILED:

06/08/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/354,478

Applicant(s)

TAGGART ET AL.

Examiner

Imad Soubra

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- 1) ☒ Responsive to communication(s) filed on 09 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8, 10-18 and 20-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-18 and 20-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 July 1999 is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some * c) ☐ None of the CERTIFIED copies of the priority documents have been:
1. ☐ received.
2. ☐ received in Application No. (Series Code / Serial Number) _____.
3. ☐ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

- 14) ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____.

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DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

- Determining the scope and contents of the prior art.
- Ascertaining the differences between the prior art and the claims at issue.
- Resolving the level of ordinary skill in the pertinent art.
- Considering objective evidence present in the application indicating obviousness or nonobviousness.

1. Claims 1-2, 4-8, 10-12, 14-18 and 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable by Kelbrick et al in view of Hirayama. Kelbrick et al intrinsically discloses a similar method and apparatus where objects are being sterilized on a conveyor belt with gaseous hydrogen peroxide and then heated to temperatures where the gas evaporates leaving a concentration of 0.5 ppm of hydrogen peroxide (see entire document). Kelbrick teaches that exhaust ducts are provided throughout the machine

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10 to receive the flow of air coming into the cabinet 11 and to maintain the desired internal pressures; a main cabinet exhaust duct 42 is provided along the bottom of the container sterilizing station 17, with various other exhaust ducts being positioned about the cabinet 11; a front exhaust duct 43 provides air flow through the container sealing station 25, a rear exhaust duct 44 is located at the turn of the endless conveyor 13 leading into the filling station 21, and exhaust ducts are located in the lidstock sterilizing zone (column 3, lines 31-40). Kelbrick further teaches that the sterilization is effected by the combined action of hydrogen peroxide and heat; the Kelbrick 's invention provides an atomized spray of aqueous hydrogen peroxide at the elbow 52 where the hot air exists the heat exchanger 51 so that a fog of hydrogen peroxide is introduced into the cabinet 11; the fog causes hydrogen peroxide to condense on all exposed surfaces within the cabinet to effect sterilization while using far less hydrogen peroxide (column 3, line 61- column 4, line 14). In the claims, where the spoon dipper was addressed, the specification disclosed as a measuring devise on page 26 line 15 which the patent of Kelbrick also teaches. For instance, aseptic air from the cabinet 11 is provided to the spray nozzle 71 through a conduit 81 which is preferably equipped with an in-line filter 83 and a flow meter 84; the conduit 81 is opened and closed by a solenoid valve 86 (column 4, lines 21-24). The reference further teaches that the machine can control the humidity of the gas as described in column 3, lines 41-60. The extending valve can also be seen in the solenoid valve 86, which can open and close the conduit (column 4, line 24-25). The reference also teaches that after 10 min., the

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valves 61 and 65 are closed, and the hot air from the manifold 57 is directed only through the nozzles 19 for 15 min. to provide a final drying of the cabinet interior and to reduce residual hydrogen peroxide levels to 0.5 ppm; it is preferred at this step to raise the temperature of the sterilization wheel 91 to about 235 degrees C (column 5, line 53-column 6, line 9). However, the patent of Kelbrick et al fails to disclose a probe extending into an interior of a container. On the other hand, the patent of Hirayama discloses a similar device in his Japanese Patent. Hirayama teaches that to ensure the removal of a sterilizer remaining in a container, by providing a nozzle which is moved downwards while delivering a jet of gas against the sidewall of the container and then removes by suction the sterilizer remaining at the bottom of the container (abstract). The motivation for combining the two references would be to ensure that the bottom of the container is being sterilized. Therefore, it would have been obvious of one having ordinary skill in the art at the time that the invention was made to include the downward nozzle of Hirayama into the apparatus of Kelbrick in order to ensure the interior of the container is being properly sterilized.

2. Claims 3 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kelbrick et al in view of Hirayama, and in further view of Muys et al. Kelbrick et al fails to disclose the following element in Kelbrick et al devise as the bottles are the objects that are being sterilized in this process. However, Muys et al discloses that element in Muys et al devise as shown in figures 1-3. Muys et al teaches that the air from a normal

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commercial air bottle, after throttling down to atmospheric pressure has a negligible partial water vapour pressure, since it will be approximately the quotient of the saturated water vapour pressure at any given temperature (compressed air bottles always contain free water), and the pressure, in atmospheres, inside the bottle (column 3, lines 26-32). Clearly, the combination of these three references will reveal the same invention as the applicant is claiming. Therefore, it would have been obvious of one having ordinary skill in the art at the time that the invention was made to modify the devise of Kelbrick et al to sterilize bottles of Muys et al in order to prevent the development of high concentration of the sterilant in the bottles (column 4, lines 6-12).

Applicants Arguments'

3. Kelbrick et al fails to teach or suggest, inter alia, "... a probe extending into an interior of a container for applying the atomized sterilant into the interior of the container, " as recited in claim 1.

Response to Applicants' Arguments


3. The Examiner agrees with the applicant since the limitations were both found in claims 9 and 19 and then moved to claim 1. The Examiner has withdrawn the 102(b) rejection and applied a 103(a) rejection combining two references of Hirayama and Kelbrick et al as mentioned above. This action is a non-final second rejection.

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Conclusion

4. Any inquiry concerning this communication from the examiner should be directed to Imad Soubra whose telephone number is (703) 305-3541. The examiner can normally be reached on 8:30 am to 4:30 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Warden can be reached on (703) 308-2920. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3599 for regular communications and (703) 305-5408 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1193.

Imad Soubra
May 1, 2001


Jill Warden
Supervisory Patent Examiner
Technology Center 1700